

WHAT IS CLAIMED IS:

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A1

1. A display device comprising:  
a pixel portion including  $m \times n$  pixels ( $m$  and  $n$  are both natural numbers and satisfy the relation  $m < n$ ), said pixels each having a TFT;  
a gate driver for feeding  $n$  gate signal lines with selection signals;  
a source driver for feeding  $m$  source signal lines with video data; and  
a video data converter circuit, wherein  
said video data converter circuit converts first video data  $(h, k)$  ( $h = 1 \sim m, k = 1 \sim n$ )  
into second video data, and wherein  
the video data  $(h, k)$  constituting said first video data is converted into  $\{m(k - 1) + h\}$ -th  
video data that constitutes said second video data.

2. A display device comprising:  
a pixel portion including  $m \times n$  pixels (in a pixel  $(h, k), h = 1 \sim m, k = 1 \sim n$ , with  $m$  and  $n$  both being natural numbers and satisfying the relation  $m < n$ ), said pixels each having a TFT;  
a gate driver for feeding  $n$  gate signal lines with selection signals;  
a source driver for feeding  $m$  source signal lines with video data; and  
a video data converter circuit, wherein  
said video data converter circuit converts first video data  $(h, k)$  ( $h = 1 \sim m, k = 1 \sim n$ )  
which is to be fed to said pixel  $(h, k)$  into second video data, and wherein  
the video data  $(h, k)$  constituting said first video data is converted into  $\{m(k - 1) + h\}$ -th  
video data that constitutes said second video data.

3. A rear projector wherein three display devices according to claim 1 are used.

4. A front projector wherein three display devices according to claim 1 are used.

5. A rear projector wherein one display device according to claim 1 is used.

6. A front projector wherein one display device according to claim 1 is used.

7. Electronic equipment comprising a display device according to claim 1 is selected from the group consisting of a head mount display, a computer, a video camera, a DVD player, and display apparatus.

8. A rear projector wherein three display devices according to claim 2 are used.

9. A front projector wherein three display devices according to claim 2 are used.

10. A rear projector wherein one display device according to claim 2 is used.

11. A front projector wherein one display device according to claim 2 is used.

12. Electronic equipment comprising a display device according to claim 2 is selected from the group consisting of a head mount display, a computer, a video camera, a DVD player, and display apparatus.

13. A display device according to claim 1 is a liquid crystal display device.

14. A display device according to claim 2 is a liquid crystal display device.

~~15.~~ A display device comprising:

a pixel portion including  $m \times n$  pixels ( $m$  and  $n$  are both natural numbers and satisfy the relation  $m < n$ ), said pixels each having a TFT;  
a gate driver for feeding  $n$  gate signal lines with selection signals; and  
a source driver for feeding  $m$  source signal lines with video data.

16. Electronic equipment comprising a display device according to claim 15 is selected from the group consisting of a front projector, a rear projector, a head mount display, a computer, a video camera, a DVD player, and display apparatus.

17. A display device according to claim 15 is a liquid crystal display device.

~~18.~~ A display device comprising:

~~a pixel portion including a plurality of pixels each having a TFT;~~  
~~a gate driver provided above said pixel portion; and~~  
~~a source driver provided on one side of said pixel portion,~~  
~~wherein a lateral length of said pixel portion is longer than a longitudinal length.~~

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19. Electronic equipment comprising a display device according to claim 18 is selected from the group consisting of a front projector, a rear projector, a head mount display, a computer, a video camera, a DVD player, and display apparatus.

20. A display device according to claim 18 is a liquid crystal display device.

*21.* A display device comprising:  
a pixel portion including a plurality of pixels each having a TFT;  
a plurality of gate signal lines connected to a gate driver; and  
a plurality of source signal lines connected to a source driver,  
wherein said plurality of gate signal lines are vertical and said plurality of source signal lines are horizontal.

22. Electronic equipment comprising a display device according to claim 21 is selected from the group consisting of a front projector, a rear projector, a head mount display, a computer, a video camera, a DVD player, and display apparatus.

23. A display device according to claim 21 is a liquid crystal display device.

*add at*